

## Supplementary Table

Effects of Polyphenols from Water Chestnut (*Trapa japonica*) on Lipid Metabolism

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**Table S1** Changes in daily nutrient intakes with the consumption of water chestnut or placebo tea

| Nutritional component                       | Group   | Test period (weeks) |              | P (Interaction:<br>group x time) | P<br>(group) | P<br>(time) |
|---------------------------------------------|---------|---------------------|--------------|----------------------------------|--------------|-------------|
|                                             |         | 0                   | 8            |                                  |              |             |
| Energy (kcal)                               | WCT     | 1626 ± 602          | 1766 ± 681   | 0.193                            | 0.072        | 0.581       |
|                                             | Placebo | 2214 ± 909          | 2157 ± 934   |                                  |              |             |
| Protein (%)                                 | WCT     | 36.2 ± 6.2          | 35.9 ± 5.4   | 0.268                            | 0.665        | 0.339       |
|                                             | Placebo | 33.7 ± 5.7          | 36.6 ± 10.4  |                                  |              |             |
| Fat (%)                                     | WCT     | 32.9 ± 8.3          | 31.3 ± 8.7   | 0.242                            | 0.454        | 0.876       |
|                                             | Placebo | 29.6 ± 7.8          | 30.8 ± 7.6   |                                  |              |             |
| Saturated fatty acids<br>(g/1000 kcal)      | WCT     | 8.76 ± 2.50         | 7.81 ± 2.31  | 0.135                            | 0.378        | 0.191       |
|                                             | Placebo | 7.60 ± 2.23         | 7.68 ± 2.26  |                                  |              |             |
| Monounsaturated fatty<br>acid (g/1000 kcal) | WCT     | 12.27 ± 3.40        | 11.72 ± 3.60 | 0.336                            | 0.494        | 0.834       |
|                                             | Placebo | 11.12 ± 3.30        | 11.47 ± 2.77 |                                  |              |             |
| Polyunsaturated fatty<br>acid (g/1000 kcal) | WCT     | 8.00 ± 2.37         | 7.96 ± 2.50  | 0.474                            | 0.566        | 0.551       |
|                                             | Placebo | 7.36 ± 1.95         | 7.80 ± 2.10  |                                  |              |             |
| Cholesterol<br>(mg/1000 kcal)               | WCT     | 226 ± 87            | 215 ± 92     | 0.251                            | 0.481        | 0.810       |
|                                             | Placebo | 196 ± 62            | 212 ± 72     |                                  |              |             |
| Carbohydrates (%)                           | WCT     | 116.3 ± 24.7        | 124.9 ± 29.7 | 0.057                            | 0.904        | 0.542       |
|                                             | Placebo | 123.8 ± 27.2        | 119.3 ± 22.6 |                                  |              |             |
| Total dietary fiber<br>(g/1000 kcal)        | WCT     | 5.3 ± 1.3           | 5.9 ± 1.4**  | 0.693                            | 0.529        | 0.002       |
|                                             | Placebo | 4.9 ± 1.6           | 5.7 ± 1.9**  |                                  |              |             |
| Potassium<br>(mg/1000 kcal)                 | WCT     | 1242 ± 241          | 1262 ± 259   | 0.206                            | 0.715        | 0.105       |
|                                             | Placebo | 1143 ± 273          | 1296 ± 390   |                                  |              |             |
| Calcium<br>(mg/1000 kcal)                   | WCT     | 254 ± 79            | 233 ± 64     | 0.090                            | 0.376        | 0.841       |
|                                             | Placebo | 213 ± 71            | 230 ± 97     |                                  |              |             |
| Magnesium<br>(mg/1000 kcal)                 | WCT     | 127 ± 21            | 126 ± 22     | 0.227                            | 0.820        | 0.323       |
|                                             | Placebo | 120 ± 26            | 130 ± 33     |                                  |              |             |
| Phosphorus<br>(mg/1000 kcal)                | WCT     | 533 ± 92            | 518 ± 89     | 0.148                            | 0.705        | 0.503       |
|                                             | Placebo | 494 ± 83            | 532 ± 145    |                                  |              |             |
| Iron<br>(mg/1000 kcal)                      | WCT     | 4.0 ± 1.0           | 3.6 ± 0.9    | 0.312                            | 0.494        | 0.223       |
|                                             | Placebo | 3.6 ± 0.9           | 4.0 ± 1.4    |                                  |              |             |
| Zinc<br>(mg/1000 kcal)                      | WCT     | 4.3 ± 0.9           | 4.3 ± 0.4    | 0.650                            | 0.488        | 0.595       |
|                                             | Placebo | 4.1 ± 0.7           | 4.2 ± 1.0    |                                  |              |             |
| Retinol<br>(µg/1000 kcal)                   | WCT     | 245 ± 183           | 179 ± 104    | 0.348                            | 0.304        | 0.966       |
|                                             | Placebo | 250 ± 231           | 311 ± 437    |                                  |              |             |
| β-Carotene equivalent<br>(µg/1000 kcal)     | WCT     | 1542 ± 1100         | 1652 ± 974   | 0.389                            | 0.764        | 0.103       |
|                                             | Placebo | 1530 ± 1033         | 1881 ± 1352  |                                  |              |             |
| Retinol equivalent<br>(µg/1000 kcal)        | WCT     | 376 ± 195           | 319 ± 144    | 0.280                            | 0.287        | 0.808       |
|                                             | Placebo | 380 ± 231           | 470 ± 452    |                                  |              |             |
| Vitamin D<br>(µg/1000 kcal)                 | WCT     | 6.1 ± 2.6           | 5.8 ± 2.9    | 0.066                            | 0.983        | 0.183       |
|                                             | Placebo | 5.0 ± 1.8           | 6.9 ± 4.6    |                                  |              |             |
| α-Tocopherol<br>(mg/1000 kcal)              | WCT     | 3.9 ± 1.1           | 3.9 ± 1.1    | 0.094                            | 0.795        | 0.063       |
|                                             | Placebo | 3.7 ± 1.0           | 4.2 ± 1.3    |                                  |              |             |
| Vitamin K<br>(µg/1000 kcal)                 | WCT     | 161 ± 81            | 171 ± 81     | 0.358                            | 0.435        | 0.045       |
|                                             | Placebo | 134 ± 63            | 159 ± 79**   |                                  |              |             |
| Vitamin B <sub>1</sub><br>(mg/1000 kcal)    | WCT     | 0.38 ± 0.10         | 0.39 ± 0.07  | 0.607                            | 0.768        | 0.296       |
|                                             | Placebo | 0.37 ± 0.08         | 0.39 ± 0.10  |                                  |              |             |
| Vitamin B <sub>2</sub><br>(mg/1000 kcal)    | WCT     | 0.74 ± 0.14         | 0.69 ± 0.14  | 0.201                            | 0.126        | 0.934       |
|                                             | Placebo | 0.62 ± 0.16         | 0.66 ± 0.22  |                                  |              |             |
| Niacin<br>(mg/1000 kcal)                    | WCT     | 9.8 ± 2.3           | 9.5 ± 2.5    | 0.217                            | 0.517        | 0.516       |
|                                             | Placebo | 9.7 ± 2.5           | 10.7 ± 3.2   |                                  |              |             |
| Vitamin B <sub>6</sub><br>(mg/1000 kcal)    | WCT     | 0.62 ± 0.13         | 0.64 ± 0.14  | 0.265                            | 0.462        | 0.121       |
|                                             | Placebo | 0.63 ± 0.15         | 0.70 ± 0.20  |                                  |              |             |
| Vitamin B <sub>12</sub><br>(µg/1000 kcal)   | WCT     | 4.4 ± 1.8           | 4.1 ± 1.7    | 0.131                            | 0.414        | 0.423       |
|                                             | Placebo | 4.2 ± 1.5           | 5.4 ± 4.1    |                                  |              |             |
| Folic acid<br>(µg/1000 kcal)                | WCT     | 172 ± 56            | 180 ± 62     | 0.331                            | 0.680        | 0.072       |
|                                             | Placebo | 155 ± 54            | 182 ± 69     |                                  |              |             |
| Pantothenic acid<br>(mg/1000 kcal)          | WCT     | 3.33 ± 0.52         | 3.35 ± 0.50  | 0.369                            | 0.441        | 0.288       |
|                                             | Placebo | 3.80 ± 0.54         | 3.32 ± 0.89  |                                  |              |             |
| Vitamin C<br>(mg/1000 kcal)                 | WCT     | 48 ± 17             | 56 ± 21*     | 0.531                            | 0.879        | 0.003       |
|                                             | Placebo | 46 ± 19             | 57 ± 25**    |                                  |              |             |
| Salt equivalent<br>(g/1000 kcal)            | WCT     | 6.1 ± 1.3           | 5.8 ± 0.9    | 0.096                            | 0.183        | 0.827       |
|                                             | Placebo | 5.3 ± 1.1           | 5.7 ± 1.1    |                                  |              |             |

WCT; water chestnut tea

Nutrients in the table were determined by the density method, a method for determining the ratio of nutrients to energy. All values are presented as mean ± standard deviation. Statistical analysis was performed by two-way ANOVA with repetition to examine the interaction. When the main effect of time was significant, a paired-t test was performed (\*: p<0.05, \*\*: p<0.01).